



DINESH VENKATARAMAN
Product Design & Development Engineer
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Skills Summary

- **15 years total experience in Design Engineering**
 - 10 years experience in Sheet metal Product Design
 - 5 years experience in Plastic and Casting Component Design
- **Software tools worked on**
 - **Creo**
 - **Catia V5**
 - **Programming Core JAVA, Python**
- **Duties & Responsibilities:**
 - To lead/conduct new product design and development projects from the conception stage to the manufacturing stage.
 - Apply diversified knowledge of engineering research Principles, practices and protocols in identification of novel solutions for product development.
 - Utilize 3D CAD system to create virtual models and engineering drawings of products support existing and new products.
 - Conduct all required calculations, tests, and measurements to ensure designs meet the intended functionality of the product.
 - Utilize proto sample to conduct analysis on designs to determine their functionality prior to developing physical prototype.
 - Perform Reverse Engineering and develop manufacturing drawings for various components and assemblies as needed.
 - Provide supplier development support to identify and qualify suppliers for different strategic sourcing efforts.
 - Review and modify mechanical designs from Product Management areas to optimize their functionality and manufacturability.
 - Provide manufacturing process design support as needed.
- **Project Management**
 - Estimation, requirement tracking, schedule tracking, progress monitoring, periodic reviews, checking compliance to standards, documentation, task assignment, team management, management reporting
 - Extensive interactions with customers and suppliers

Professional Experience

Stellar Solutions., Coimbatore. (Marketing Agency and Outsourcing Provider)
Senior Design & Development Engineer – 1st Sep 2009 till date

Engine Components & Transmission System Design for Off Road Vehicle Unit(Tractor)

- Select Engine for Tractor from particular existing range of tractor model
- Selection of sub assembly like fuel system for inline fuel distributor pump, overhead valve unit for Cylinder Head Assembly, Combustion Chamber Selection for Fuel Efficiency and Low Speed Torque, Selection of Valve Timing Drive Train arrangement.
- Detailed engineering design including engineering calculations.
- Prepare BOM for Non-Standard & Standard components & Assembly, Sub Assembly
- Selecting Lubricating Pump for Lubricating System; prepare Oil Galleries and select Number of Lub Oil lines; Modeling of Fuel Lines for Fuel System
- Carried out various the casting components & Forging for drawing preparation & Documents release through **Creo & Catia V5**

Transmission System (Combination of Sliding and Synchronizer Gear Box)

- Select Transmission System for Tractor from particular existing range of tractor models
- Finalized the number of speed and select type of transmission system.
- Provided combination of the sliding and synchronizer transmission system
- Prepared kinematics diagram for independent PTO, live PTO and gears arrangement for shifting and range gear shifting arrangement.
- Prepared number of shaft and arrangement of shaft and selection of bearing for shaft assembly
- Finalized number of gears and number of gear tooth for various speeds
- Selection and reverse engineering synchronizer ring and hub for 2nd, 3rd and 4th gears

Sheet metal Product for Telecom Application:

- **FDMS-Fiber Distribution Management Systems (Rack Enclosure Assembly)**
Overall Enclosure Frame Layout (2200 X 9000 X 400mm and 600mm)
Included 24F 1U Panel 6 Nos, 48F 2U Panel 4Nos, 72F 3U Panel 1no., Splitter Box, Half Mount Panel, L Clamp and All Panels Mounting Pitch Standard is 19inch.
- **FTB-Fiber Termination Box Assembly-** Overall Main Frame and Top cover Assembly(380 X 320 X 110mm) ,Earth Plate with Mounting Screws Assembly, Adaptor Patch Plate with Mounting Screws
- **FDP- Fiber Distribution Panel Assembly-**
 - 1.Overall Main Frame and Top cover Assembly 6 Port (280 X 190 X 45mm) , punched or Welded Insert with Mounting Screws for Splice Tray Assembly.
 2. Overall Main Frame and Top cover Assembly 48 Port (502 X 315 X 88mm) ,Adaptor Patch Plate, Telescopic slider Tray Assembly, Tie Wrapping Plate, Punched or Welded Insert for Splice Tray Assembly.
 3. Overall Main Frame and Top cover integrated Assembly(502 X 315 X 264mm) Adaptor Patch Plate, Telescopic slider Tray Assembly, Tie Wrapping Plate,punched or Welded Insert for Splice Tray Assembly.

- **PBX-Private Branch eXchange Metal Cabinet-** Overall Main Frame and Top cover Assembly(260 X 240 X 55 mm) and punched or Welded Insert for PCB Assembly Mounting

Electromechanical Product for Diesel and Beverage Application:

- **Diesel Cutoff Valve and Solenoid for Speed Governor**
Solenoid Unit DC24V, 50 to 51Ω –U-Frame, Bobbin with Coil Assembly
Cutoff Valve Unit up to 16bar -Brass Metal Valve Body, Adjustable Screw, Plunger with Pad, Spring and Needle for controlling the fuel flow.
- **Solenoid Coil assembly for Electronic Diesel Injector**
Solenoid Unit 550 TO 580 Ohms and 150mH- This has 2 solenoid coil Assembly to connect in between the injector Valve Body and spool work as electrical energy convert into Mechanical Energy and control the flow of fuel through the Injector Valve.
- **Solenoid Valve for Diesel Injector**
Solenoid Unit 360 TO 390 Ohms and 30mH – This Solenoid has Solid sintered core pure iron(Fe)with Coil Assembly and working as spring loaded electromagnetic, This Valve connected with Shim and armature core lift and adjusting the shim assembly and control fuel flow.
- **Beverage Solenoid Pump Assembly**
Solenoid Unit Operating Voltage 230V/50Hz, power - 53W Max- This Solenoid has Bobbin with flate connector and D-Frame Assembly
Hydraulic Pump Unit upto Max 15bar, 18000cycle (10 Bar) This Pump has plunger(SS321) , spring(SS) Pad EPDM Rubber, Pump Body Nylon 66

Pricol Limited., Coimbatore. (through TrioZ Technologies)

Design Engineer – 7th Nov 2006 to 29th Aug 2009

Role: Product Design Engineer for Instrument Clusters and Plastic Components

Highlights

- Prepared models, drawings, bill of materials and other specifications. Deciding on suitable product to release documents like BOM, Routing, Drawing, ECN etc & keep updated to all concerned departments for modifications (using SAP).

Sundaram Clayton Ltd., Chennai.

Engineer trainee – 7th Jan 2004 to 10th Oct 2006

Role: Engineer Trainee

Highlights

- Carried out various size of the casting components for drawing preparation & Documents release through **Pro-E**

Education

Bachelor of Engineering (Mechanical)	2000 to 2003	Sona College of technology, Salem	74%
Diploma in Mechanical Engineering	1997 to 2000	Rajaji Institute of technology, Salem	84%
S.S.L.C	1996 to 1997	Shree Ramakrishna Sarada Higher Sec School.	73%

PERSONAL DETAILS

Father's Name : K.VENKATRAMAN
Date of Birth : 20/06/1980, PASSPORT NO- N2018002
Gender : Male
Marital Status : Married
Nationality : Indian
Languages known : English, Tamil

DECLARATION:

I hereby declare that the above furnished information is true up to my knowledge.

Date:

(V,DINESH)